

LB/DOA/104/06  
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**AN EXAMINATION OF THE RELATIONSHIP BETWEEN  
CLIMATE, CULTURE AND BUILT FORM WITH SPECIAL  
REFERENCE TO  
HOT-HUMID CLIMATE**

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MORATUWA**

A Dissertation presented to the  
University of Moratuwa  
For the Final Examination in M.Sc.  
Architecture  
March 2005

72<sup>05</sup>  
72(043)

University of Moratuwa



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NAVARATHNE N.M.R.K.  
2005

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## **ACKNOWLEDGEMENT**

I offer my sincere thanks to Dr. Harsh Moonasingha and Dr. Upendra Rajapaksh, Coordinator, Post-Graduate Dissertation, For their untiring advise and guidance.

My appreciation is expressed to Miss. Marine Samarathunga, Ayeshani De Silva and Roshini Weekramanayake for their valuable assistance.

I expressed my thank to Chandika, Rasika, Asanga, Rasika, Lakkana for their supporting.

Finally I wish to thank my family, Dilupa Akka and Thushara Aiyya and finally Buddhika Aiya for their encouragement and helping.



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## ABSTRACT

It is the need for protection from climate that compelled man to build shelter. Since then, his endless thirst for comfort evolved this basic skeleton into new forms thus creating architecture. Human comfort is identified as physical comfort and psychological comfort. These two are closely linked with each other. Physical comfort facilitates psychological comfort. Therefore achieving physical comfort has a close relationship with climatic response of a built environment, which is manifested by climate responsive design strategies. Strategy is the art of planning the way to achieve something or to be successful in a particular field. The term strategy is used to mean a list of actions taken by a designer, in order to transform an initial brief into a final design. In any field, not only in architecture, people have advocated strategic methods to achieve best results therefore climate responsive design strategies in architecture are list of methods or combination of design decisions that one can intend to use to achieve best results in the field or architecture, in a specific climatic condition. The unique climatic conditions and comfort needs, along with other socio-cultural factors create unique forms and unique places throughout the world.

"Climate is clearly one of the prime factors in culture, and therefore built form. It is the mainspring for all the sensual qualities that add up to a vital tropical architecture."

Tan Hock Beng (1994: 13)

Climate is the most important factor that brings unique characteristics to different regions of the planet earth. For example Alaska is different from Africa due to its unique climate. Therefore the culture is also should be unique in those unique places, which generate unique built form. Climate responsive design strategies should contribute immensely to enhance the culture of those places. Therefore

the essay would be an attempt to combine the qualitative aspect (Uniqueness of place) along with the quantitative aspects (climate) of architecture.

↓ Scope & Limitations  
Indicates a qualitative approach



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## INTRODUCTION

## **0.1 IMPORTANCE OF THE STUDY**

The present day context in almost all parts of the worlds is subjected to a rapid change, posing challenges in all aspects of human life. Sri Lanka offers no exception in this regard. And the population growth and urbanization, etc have compelled its people to built houses and other buildings on smaller plots of land. Due to aesthetics and great variety of other qualitative and quantitative requirements to be fulfilled in designing the buildings, climate has been pushed into an unimportant secondary position. In most of the design methodologies used by architects, the climatic factor is identified as a secondary force or a modifying factor. Climatic factor is so inherent in all aspects of the built environment that people have taken it for granted. This has resulted in uncomfortable unlivable meaningless, buildings, which in turn have made negative impacts on human behavior.

Climate controls each and every aspect of life. Identity of a society or a culture is determined primarily by climate. For example the rhythm of music used by a culture, which is unique to that culture, has great relationship with the climatic factors such as the sun, rain and wind of that region. If this identity is lost the sense of belonging also will be lost. This situation causes serious social problems such as people loss their identity, relationship between neighborhoods, behavior pattern and personality.

## **0.2 INTENTIONS OF THE STUDY**

In this study, it is intended to examine the relationship between the climate responsiveness in hot humid climate and its relationship to the culture.

Since the culture and climate responsive building designs are two of the most important issues in the present architectural field, this study would enable

one to understand their importance and incorporate them in making meaningful and successful building designs in the built environment.

### 0.3 SCOPE AND LIMITATIONS

Very little work has been done from the point of view adopted here, and this study must be exploratory. No essay or book on such a vast subject can be final – and this one, in fact, represents a generally accepted or shared body of thought. Many of the conclusions will, no doubt, have to be elaborated and revised in the future.

And also due to the limitations of time and resources the study would focus only on the hot humid climates.

According to Christopher Day (1990 : 46) , " *The create nice and more ?* importantly, meaningful, appropriate atmospheres, we need to focus out attention not on the quantities but on the qualities." Likewise, in this essay I have chosen a qualitative approach (Using the writer/my self as the indicator / meter) rather than evaluating climatic impact by means of a set of numerical values.

The photographic medium is primarily used to strengthen the statements made. However, this medium is not totally successful in capturing the spatial quality and time because space is always experienced as a totality. Egyptian architect Hassan Fathy once defined architecture as, "the space between the walls and not the walls". The photographic image can only capture the walls.

#### 0.4 METHOD OF STUDY

The study would be in three phases. At the first phase, the hot humid climate and its relationship to Architecture will be discussed. After discussing the climate, in general, along with global and local climatic zones, climate responsive designs, especially in hot humid climates will be discussed in depth.

The second phase would start by discussing the culture in general. The later part of that phase would talk of cultures in response to climate. The third phase would focus on the contribution of climate responsive design strategies in enhancing the particular culture. Local and international examples would be given. Case studies would be given to strengthen the statement.

